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(54) Title: COMPOSITIONS AND METHODS FOR GROWTH OF EMBRYONIC STEM CELLS

(57) Abstract: The present invention relates to methods, compositions, and kits for maintenance of the undifferentiated state and/or pluripotency in stem cells, including embryonic stem (ES) cells. It also relates to stem cells that have been maintained in an undifferentiated state. The present invention provides these aspects using culture medium enriched with a TGF β family member protein, an FGF family member protein, and/or nicotinamide, without using fibroblast feeder layers, conditioned media, or leukemia inhibitory factor.



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